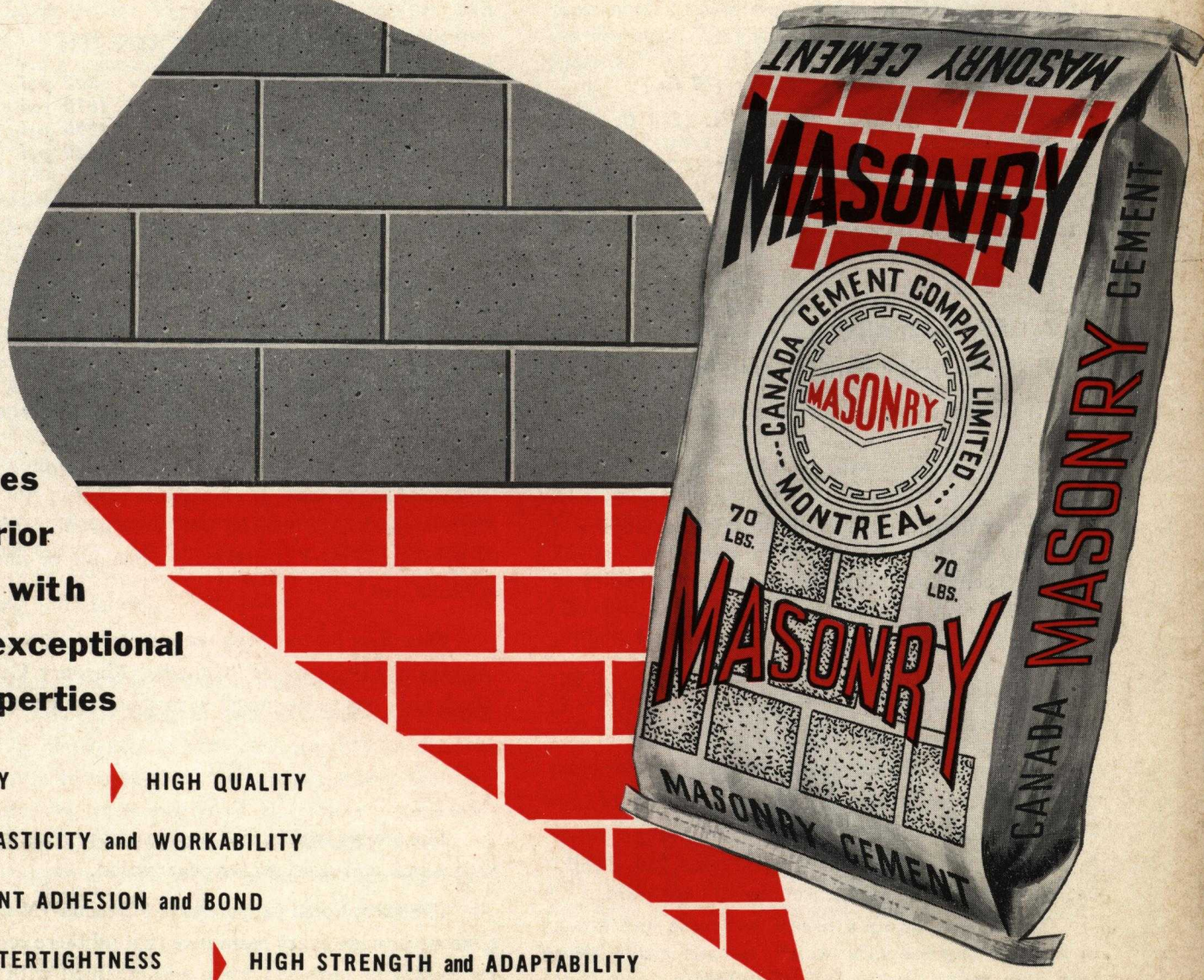
FOR ALL TYPES OF MASONRY WORK

SPECIFY . . .

CANADA MASONRY CEMENT



It Produces a superior mortar with these exceptional properties

- ECONOMY
- HIGH QUALITY
- PLASTICITY and WORKABILITY
- EXCELLENT ADHESION and BOND
- WATERTIGHTNESS
- HIGH STRENGTH and ADAPTABILITY
- DURABILITY
- RESISTANT TO EFFLORESCENCE - GOOD APPEARANCE

CANADA MASONRY CEMENT

(*Another Canada Cement Company Product*)

THROUGH outstanding performance, the name Canada Cement has become synonymous with high quality and uniformity in all types of Portland Cement. These attributes apply to "Canada" Masonry Cement - the modern cement specially designed to produce quality mortar for all types of masonry work where lime-cement mortars have been used.

This pamphlet describes the properties of "Canada" Masonry Cement and places in the hands of the architect, engineer, contractor, mason and owner, convenient information which will be found an important aid to quality masonry construction.

WHAT IS CANADA MASONRY CEMENT

"Canada" Masonry Cement is an accurately proportioned and uniformly controlled mixture of Normal Portland cement clinker and high-calcium limestone. To this finely interground blend, an air-entraining and plasticizing agent and a set retarder have been added. This hydraulic cement was developed to provide the Mason with a single-package material which would impart to masonry mortars the qualities most desired. ***It meets fully the requirements of the U.S. Federal Specification SS-C-181 and the A.S.T.M. Specification C-91 for Masonry Cement.*** The strength characteristics of "Canada" Masonry Cement reported from independent laboratory tests are interesting The average values obtained for mortar cubes in which commercial masonry sand with "Canada" Masonry Cement had been used were as follows:

PROPORTIONS:		COMPRESSIVE STRENGTH	
Masonry Cement	*1 bag (70 lb.)*	*7 days*	*900 psi*
Masonry Sand	*3 cu. ft. (270 lb.)*	*14 days*	*1070 psi*
Water	*4.9 gal.*	*28 days*	*1290 psi*
		90 days	*1640 psi*

"Canada" Masonry Cement is so made that when one part of this material is mixed with three parts of mason's sand and sufficient water, a superior mortar having the following exceptional properties, is produced:

1. ***Economy***
2. ***High Quality***
3. ***Plasticity and Workability***
4. ***Excellent Adhesion and Bond***
5. ***Watertightness***
6. ***High Strength and Adaptability***
7. ***Durability***
8. ***Resistant to Efflorescence— Good Appearance***

1. ECONOMY

Proper design, good workmanship and approved materials are requisites of quality masonry construction. Hence, other things being equal, the quality of the mortar is a decisive factor in assuring durable, weathertight masonry, resulting in low annual maintenance.

One ready-to-use cementing material instead of two, means one less material to measure and one less material to handle on the job. No addition of lime or Portland cement is necessary. Soaking or slacking is eliminated.

This emphasizes the economy of labour an important advantage of "Canada" Masonry Cement which only has to be mixed with sand and water.

2. HIGH QUALITY

In a masonry mortar, the Architect is interested in obtaining a watertight joint, good bond, low shrinkage, resistance to efflorescence and no expansion.

The Mason wants a plastic workable mix which is buttery and smooth, which spreads easily with minimum waste due to lack of adhesion - one that assures economical high-speed performance.

The Owner insists on a watertight and attractive wall which will resist water penetration.

The exceptional properties of "Canada" Masonry Cement provide every assurance that all these requirements will be obtained when accompanied with good workmanship.

3. PLASTICITY AND WORKABILITY

Plasticity and workability are essential to assure quality and economy in masonry work, and play an important part in the appearance of mortar joints in the finished work. "Canada" Masonry Cement produces an extra-fat mortar which spreads easily into long mortar beds and works smoothly under the trowel, with maximum speed and minimum effort. No additional plasticizing ingredient should be used.

4. EXCELLENT ADHESION AND BOND

Building units used in masonry construction vary greatly in water absorption characteristics; some are very porous while others are relatively impervious.

Porous units have a tendency to absorb water from the mortar thus resulting in loss of bond, plasticity and strength; on the other hand, impervious units do not absorb water which may bleed from the mortar. The unusually high water retention of "Canada" Masonry Cement allows mortars made with it to be used with a wide range of units.

Hardening is timed to permit deep penetration and keying into the masonry unit. Exceptional uniformity of volume means that the bond, once formed, is of long life.

5. WATERTIGHTNESS

Watertightness of mortar joints is essential because if water is allowed to penetrate into a wall, then during subsequent periods of alternate freezing and thawing, serious damage to the structure will most likely occur. The best protection against such destructive action is to minimize water penetration. The use of a dependable brand of masonry cement and first-class building unit and the insistance on good design and quality workmanship will achieve dry walls or long-lasting masonry construction.

"Canada" Masonry Cement is manufactured so that mortar made from it has a high degree of impermeability. WATERPROOFING ADMIXTURES SHOULD NOT BE ADDED.

6. HIGH STRENGTH AND ADAPTABILITY

The strength of "Canada" Masonry Cement is above the specification requirements for masonry cement and a mixture of approximately 1:3 mortar is most satisfactory for general masonry construction—block foundations, load-bearing and parapet walls, chimneys, etc., without the further addition of Portland cement or admixture of any kind.

"Canada" Masonry Cement contains Canada Portland Cement clinker as one of its basic ingredients thus incorporating the characteristic strength of Canada Portland Cement. This together with the combination of the water retention, adhesion and plasticity of this masonry cement assures adequate early and ultimate strength.

"Canada" Masonry Cement is designed particularly to develop good bond in masonry construction and it can be used for all types of mortar indicated in A.S.T.M. Specification for Mortar for Masonry Units, Designation C 270.

7. DURABILITY

Durability is of special importance in providing long-time protection against exposure to the elements. "Canada" Masonry Cement produces an exceptionally durable mortar. Its air-entraining properties assure high resistance to the destructive effect of alternate freezing and thawing.

Its characteristics of watertightness and low absorption prevent joints from becoming saturated, protecting them against weathering action. Mortar joints made with "Canada" Masonry Cement are strong and durable providing sound protection against the costly expense of re-pointing.

8. RESISTANCE TO EFFLORESCENCE — GOOD APPEARANCE

Efflorescence occurs when soluble salts are present in the materials used in masonry work and water exists or penetrates in sufficient quantity to dissolve and carry these salts to the surface where they are deposited by evaporation of the water. "Canada" Masonry Cement produces a watertight mortar of low absorption which serves to restrain the migration of any soluble salts to the surface. It requires only the additional factors of high quality masonry units and good workmanship to resist efflorescence.

If colouring is desired, only first class mineral pigments in limited quantity should be used.

Uniform, harmonious colour is most desirable in exposed surfaces of masonry work. The colour of mortar made with "Canada" Masonry Cement is a soft, uniform, silvery grey which blends well with any type of brick, stone and concrete masonry unit.

Canada Masonry Cement is a Canadian-made product for Canadians and suitable to Canadian climate. Its popularity is increasing every day. For best results specify and use Canada Masonry Cement on all your masonry work.

REFERENCE TABLES for Estimating Quantities

Table I: BRICK AND MORTAR FOR 100 SQUARE FEET OF SOLID BRICK WALL

JOINT THICKNESS	¼″	⅜″	½″	⅝″
4-INCH WALL				
Bricks—No.	698	**655**	616	581
Mortar—Cu. Ft.	4.0	**5.7**	7.2	8.6
Cu. Yd.	.148	**.211**	.267	.318
*Wt.—1 Sq. Ft. Wall—Lb.	33.6	**34.0**	34.2	34.6
8-INCH WALL				
Bricks—No.	1396	**1310**	1232	1161
Mortar—Cu. Ft.	12.2	**15.5**	18.6	21.3
Cu. Yd.	.452	**.574**	.689	.788
*Wt.—1 Sq. Ft. Wall—Lb.	72.6	**73.2**	73.9	74.3
12-INCH WALL				
Bricks—No.	2095	**1965**	1848	1742
Mortar—Cu. Ft	20.3	**25.3**	29.9	34.0
Cu. Yd.	.752	**.937**	1.11	1.26
*Wt.—1 Sq. Ft. Wall—Lb.	111.4	**112.4**	113.4	114.1
16-INCH WALL				
Bricks—No.	2793	**2620**	2464	2322
Mortar—Cu. Ft.	28.5	**35.1**	41.4	46.7
Cu. Yd.	1.06	**1.30**	1.53	1.73
*Wt.—1 Sq. Ft. Wall—Lb.	150.1	**151.0**	152.9	153.9

Quantities are net—Allow for waste.
*Approximate wt. wall = No. Bricks x 4.1 lb. + Cu. Ft. Mortar x 125 lb.
Common brick 2¼″ x 3¾″ x 8″. All joints filled.

Table II: BLOCK AND MORTAR FOR 100 SQUARE FEET OF BLOCK WALL

MATERIALS	CONCRETE BLOCK—Height x Length		
	7⅝″x15⅝″	5″x11¾″	3⅝″x15⅝″
4-INCH WALL			
Blocks—No.	112.5	220	225
Mortar—Cu. Ft.	2.3	3.6	3.9
Cu. Yd.	.085	.133	.144
*Wt. 1 Sq. Ft. Wall—Heavy Agt.	28.5	30.0	30.5
—Lbs. —Light Agt.	20.5	21.5	21.5
6-INCH WALL			
Blocks—No.	112.5	220	225
Mortar—Cu. Ft.	2.3	3.6	3.9
Cu. Yd.	.085	.133	.144
*Wt. 1 Sq. Ft. Wall—Heavy Agt.	43.5	45.0	45.5
—Lbs. —Light Agt.	29.5	30.5	30.5
8-INCH WALL			
Blocks—No.	112.5	220	225
Mortar—Cu. Ft.	2.3	3.6	3.9
Cu. Yd.	.085	.133	.144
*Wt. 1 Sq. Ft. Wall—Heavy Agt.	55.0	56.5	57.0
—Lbs. —Light Agt.	36.0	37.0	37.0
12-INCH WALL			
Blocks—No.	112.5	—	—
Mortar—Cu. Ft.	2.3	—	—
Cu. Yd.	.085	—	—
*Wt. 1 Sq. Ft. Wall—Heavy Agt.	79.5	—	—
—Lbs. —Light Agt.	49.0	—	—

Quantities are net—Allow for waste.
Data based on ⅜-inch mortar joint, with face-shell bedding.
*Approx. wt. of wall = actual wt. single unit x no. units + 125 x cu. ft. mortar.
Actual wt. of wall with heavy agt. block usually within ± 7% table value.
Actual wt. of wall with light agt. block usually within ± 17% table value.

Table III: 1:3 MORTAR—QUANTITIES FOR 1000 BRICK—Size 2¼ x 3¾ x 8 in.

Sand Lb./Cu. Ft.		80		85		90		95	
Joint	Mortar Cu. Ft.	Cement Bags	Sand Cu. Yd.	Cement Bags	Sand Cu. Yd.	Cement Bags	Sand Cu. Yd.	Cement Bags	Sand Cu. Yd.
4-INCH WALL									
¼″	5.7	1.9	.21	1.8	.20	1.7	.19	1.6	.18
⅜″	**9.0**	**3.0**	**.33**	**2.8**	**.32**	**2.7**	**.30**	**2.6**	**.28**
½″	11.7	3.9	.43	3.7	.41	3.5	.39	3.3	.37
⅝″	14.8	4.9	.55	4.7	.52	4.4	.49	4.2	.47
8-INCH WALL									
¼″	8.7	2.9	.32	2.7	.31	2.6	.29	2.5	.27
⅜″	**11.7**	**3.9**	**.43**	**3.7**	**.41**	**3.5**	**.39**	**3.3**	**.37**
½″	15.1	5.0	.56	4.8	.53	4.5	.50	4.3	.48
⅝″	18.3	6.1	.68	5.8	.64	5.5	.61	5.2	.58
12-INCH WALL									
¼″	9.7	3.2	.36	3.1	.34	2.9	.32	2.8	.31
⅜″	**13.0**	**4.3**	**.48**	**4.1**	**.46**	**3.9**	**.43**	**3.7**	**.41**
½″	16.3	5.4	.60	5.1	.57	4.9	.54	4.7	.51
⅝″	19.6	6.5	.73	6.2	.69	5.9	.65	5.6	.62
16-INCH WALL									
¼″	10.2	3.4	.38	3.2	.36	3.1	.34	2.9	.32
⅜″	**13.4**	**4.5**	**.50**	**4.2**	**.47**	**4.0**	**.45**	**3.8**	**.42**
½″	16.8	5.6	.62	5.3	.59	5.0	.56	4.8	.53
⅝″	20.1	6.7	.74	6.3	.71	6.0	.67	5.7	.63
Unit H x L	MORTAR QUANTITIES FOR 100 BLOCK								
8x16	2.1	.70	.078	.66	.074	.63	.070	.60	.066
5x12	1.5	.50	.056	.47	.053	.45	.050	.43	.047
4x16	1.6	.53	.059	.50	.056	.48	.053	.46	.050

Quantities are net—Allow for waste. Brick data based on common brick, all walls solid with full bed and head joints. Block data based on ⅜-in. mortar joints.

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Canada Cement Company Limited

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